

Baranga, Andrei**Z-continuous posets, topological aspects.** (English) Zbl 0883.06007

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Summary: The concept of “subset system on the category \mathbf{Po} of posets” (\mathbf{Z} -sets) was defined by *J. B. Wright, E. G. Wagner* and *J. W. Thatcher* [Theor. Comput. Sci. 7, 57-77 (1978; [Zbl 0732.06001](#))]. The term \mathbf{Z} -set becomes meaningful if we replace \mathbf{Z} by “directed”, “chain”, “finite”. At the end of the paper [loc. cit.], the authors suggested to try to study the generalized counterpart of the term “continuous poset (lattice)” obtained by replacing directed sets with \mathbf{Z} -sets, \mathbf{Z} being an arbitrary subset system on \mathbf{Po} . We present here some results concerning this investigation. If the author’s earlier results [Discrete Math. 152, No. 1-3, 33-45 (1996; [Zbl 0851.06003](#))] are generalized counterparts of some purely order facts about continuous posets, the present paper deals with a generalized counterpart of the Scott topology on posets and some results related to this concept.

MSC:[06B35](#) Continuous lattices and posets, applications[06A15](#) Galois correspondences, closure operators (in relation to ordered sets)Cited in 1 Document**Keywords:**subset system; \mathbf{Z} -set; continuous posets